“Study of Avian Fauna, Abundance and Nesting BehaviorIn and around Hingoli District”

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Format for submission Ph. D Synopsis / Work Plan

For faculty of Science to be submitted in front of RRC

Abstract of proposed work plan/problem

"Study of Avian Fauna, Abundanceand Nesting Behavior In and around Hingoli District"

1. Introduction (Definition of problem):

Bird communities are an important component of theecosystem, and it indicates the healthiness of the ecosystem.Birds are ecologically versatile and live in all types ofhabitats. They play an important role in the ecosystem aspotential pollinators, scavengers, and good indicators of the health of the ecosystem. Birds feed on different types of insects and pests and controltheir level naturally; they help in the dispersal of plant seeds.Birds are good scavengers example- crows and kites dispose of all the small dead animals and garbage, the same services of the birds are useful to prevent the transmission of many epidemics where large number of organism dies (Salim ali, 2012).Quails, partridges and other game birds are also netted or shot for eating purposes.The piscivorous birds have their own way of helping farmers and agriculturalists, their dropping, called guano is excellent fertilizerthat is valuable for farmers. Some birds are largely exported to Europe for headdress snippets, muffs, example-Egret. Some birds are also helpful for propagating tress by dropping the undigested seeds of fruit. By dropping seeds in different places which helps to growth of forest. Activities like listening the songs of birds, watching birds, feeding birds feeders etc. improves stress relief for humans. Birds boost tourism by attracts bird lovers tourist to their migration and nesting area. Birds are also excellent indicators of environmental health. But now day's continuous deforestation, extensive agriculture, pollution, and human interference reduced the natural habitats of birds and thus some species of birds become declining. It needs of time to conserve them otherwise some species will completely diminish.

Hingoli district located at Latitude is of 19.43 N and Longitude is 77.11 E.Itoccupies an area of 4,526km and has a population of 11,77,345 of which 15.60% were Urban (as of 2011). District has rich perennial waterbodies. Presently in all twenty-three minor and major water perennial bodies are present. Here is the scope for constructing new major or minor water bodies in the future. Hingoli District is the educationally backward main business of the people is farming.The area of Hingoli District richlyforest area and bird diversity are rich.

No study of Avian Fauna Diversity, Abundance and Nesting Behavior In and around Hingoli Districtis carried before, No proper data are available on the diversity, distribution, status, and abundance of avian fauna of Hingoli district.

By keeping this in mind, the study is proposed. This study would be baseline information for future studies.It's a need of hourto study Avian Fauna of Hingoli Districts and their nesting Behavior. Hingoli Districts to conserve them.

2. Review of Literature and Development in the Subject (Previous Work Done in the Relevant Area)

Many researchers worked on diversity, distribution, status and abundance of birds all over India that includes checklist of 453 bird species [2], 127 avian species belonging to 38 families from Dindori District [3], 140 species from the TERI campus of Madhya Pradesh [4]. About 113 species from the Sultanpur National Park, Gurgaon Haryana [5], 109 species from Gauhati University Campus, Assam [6], 304 species from Pond Dam Wetland in Himachal Pradesh [7], 99 species from Vansada National Park Gujarat [8], 93 species from Campus of University of Jammu [9]. In Maharashtra also several research works reported on the Avian fauna in which 540 bird species reported from Maharashtra. About 450 bird species listed from western Maharashtra , 64 species from Salim Ali lake Aurangabad,151 species from Nanded city . Total 165 species from Osmanabad district , 53 species from Parbhani district , 55 species from the Ghotnimbala lake of Chandrapur district , 50 species in Aundha Nagnath of Hingoli district and 84 species Majalgaon of Beed District . However, no proper data are available on the diversity, distribution, status and abundance of avian fauna of Jalna district. By keeping this mind, we conducted this survey to investigate the same. This study would be baseline information for future studies.

3. Objectives of Research/Proposed Hypothesis:

1. Study of Avian Fauna in and around Hingoli District.
2. Seasonal Abundance of Avian fauna
3. Observe and Study, Nesting Behaviorand types of nests.

4. Methodology to be Adopted:

1. The bird surveys will be carried out from selected areas monthly from November 2022 to December 2024.
2. Survey of birds made by digital (Lumix MDC-FZ 1000 and Canon PowerShot SX540HS) Digital camera (10x20).
3. Observation will be made direct observations and species, noting birds by walking on the roads, tracks, wetlands, grasslands and agricultural areas.
4. These observations were carried out at different spots in and around the large wetlands, forest and agricultural areas.
5. Birds will be identified following standard literature S. Ali, S. D. Ripley, ‘’Compact Edition of Handbook of the Birds of India and Pakistan’’, Bombay Natural History Society and Oxford University Press, Bombay, pp. 737, 1983., R. Grimmett, C. Inskipp, T. Inskipp, “Birds of the Indian Subcontinent”, Christopher Helm Publishers Ltd., London, United Kingdom, pp. 528, 2011., P. C., Rasmussen, J. C Anderton, “Birds of South Asia”, The Ripley guide, Smithsonian Institution and Lynx Edition, Washington, D.C. and Barcelona Vols. 1 and 2, 2005.
6. Nesting behavior will be observed of during the study period.

1. Importance of Study / Society Application: -

i. National Status

Suresh M Kumbar and Abhijit B Ghadage studied Preliminary study on avian fauna of the Krishna River basin Sangli District, Western Maharashtra, India,Saeed Abbas*et. al.*Avian Diversity in Central Karakoram National Park, Gilgit-Baltistan, Rohtash Chand Gupta studied Documentation of avian diversity of Khaparwas Bird Sanctuary in Jhajjar district in Haryana, India.Suresh M Kumbar, Abhijit B Ghadage,Preliminary study on avian fauna of the Krishna River basin Sangli District, Western Maharashtra, India. Number of researchers are involved in this study.

ii. International status

Status, guild and diversity of avian fauna from wetland site and surroundings, in Krishnagar, a City beside tropic of cancer studied by S. Chowdhury, U. Aich, O. Shahadat, West Bengal, India studied by Madhuban Datta, Checklist of avian fauna of Dhaka University Campus, Bangladesh.

Significance of the Study

Birds provide a terrific doorway into nature and scientific study. They are easy to see and study. They engage in fascinating behaviors and play important roles in the ecosystems that sustain life. Birds are excellent indicators of environmental health. Their changing populations often provide clues to the overall health of their habitat. Go to our Conservation section for more information.

5. Proposed work plan/Formulation and structure of study :

(Year wise plan of work and targets to achieved) November 2022 – October 2023 :

1.Survey of Literature

2.Observation of Birds with Biacular telescope

3.Study of Avian Fauna diversity.

4.Observe of nesting behaviour of birds.

November 2023 – October2024 :

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November 2023 – October 2024

1. Literature survey.
2. Data tabulation.
3. Writing work

6. Reference:

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